

REMARKS

The claims have been amended to make stylistic changes and to clarify the limitation pertaining to how the filter cartridge may be capable of engaging the receiving structure on the face piece. Claims 21, 23, and 24 have been canceled. Thus, claims 1-20, 22, and 25-28 are now pending in this case.

Claims 1-20 and 25-28 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner indicated that it "is ambiguous as to the specific structure which is intended to not undergo a rotation." The Examiner has also indicated that "the specific rotational movement is ambiguous as to the specific path of rotation relative to the recited structure has not been specified." Although applicants believe that the claim was clear in the first instance, it has nonetheless been amended to eliminate any issue with respect to the rejection under 35 U.S.C. § 112, second paragraph. As recited, the engagement between the filter cartridge and the cartridge receiving structure can be instantaneously obtainable by pressing the filter cartridge against the receiving structure without rotational movement of the filter cartridge relative to the receiving structure. Although the filter cartridge may be rotated during this engagement, the relative rotation of the cartridge or face piece is not necessary to allow the securing to take place.

Claims 1-6, 9, 10, 14, 16, and 18-28 have been rejected as being anticipated by or as being obvious over U.S. Patent 5,062,421 to Burns et al. (Burns). Applicants respectfully submit that this rejection cannot be sustained.

The subject matter of independent claims 1, 22, and 25 require a filter cartridge that is capable of being readily separated from the cartridge receiving structure by pulling manually thereon. Burns does not teach or suggest the use of such a filter cartridge in its respirator. In the respirator disclosed in Burns, the locking tabs 29 cause the filter cartridges 28 to be permanently snapped into place. The cartridge in Burns, thus is not replaceable, and the whole mask must be discarded when the filters have met their service life.

In contrast, the present invention not only allows the filter cartridge to be snapped into engagement but also allows the filter cartridge to be quickly removed from the respirator face piece. This may be accomplished simply by pulling on the cartridge in a direction opposite to

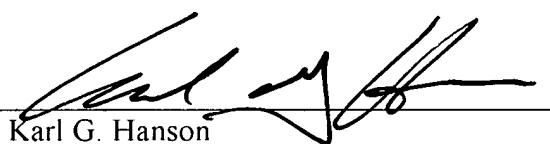
which it was pressed onto the face piece. Thus, applicants' invention possesses the advantage of allowing the filter cartridge to be readily replaced when needed. The mask body can be reused. Because Burns fails to disclose the structure of applicants' claimed invention, Burns does not anticipate it under the terms of 35 U.S.C. § 102(b). And since the structure is not suggested in any manner by Burns and also since Burns fails to provide any appreciation of the advantages that stem from this new structure, Burns would not have made applicants' invention obvious to a person of ordinary skill within the meaning of 35 U.S.C. § 103. Accordingly, the rejection pertaining to claims 1, 22, and 25 cannot be properly sustained.

In view of the above, applicants believe that this application is in condition to be allowed. Please favorably reconsider these rejections and allow this application at an early date.

Registration Number	Telephone Number
32,900	651-736-7776
Date	7/3/01

Respectfully submitted,

By



Karl G. Hanson

Office of Intellectual Property Counsel
3M Innovative Properties Company
P.O. Box 33427
St. Paul, Minnesota 55133-3427
Facsimile: (651) 736-3833
51362USA5B.010/Amendment 3

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (amended) A respirator that comprises:

- (a) a face piece that is sized to fit at least over the nose and mouth of a person;
- (b) a cartridge receiving structure that is located on the face piece; and
- (c) a filter cartridge that has a housing into which a filter element is contained, the filter cartridge capable of being manually snapped into engagement with the cartridge receiving structure to produce an audible noise, the engagement being instantaneously obtainable by pressing the filter cartridge against the receiving structure without rotational movement of the filter cartridge relative to the receiving structure, the filter cartridge further being capable of being readily separated from the cartridge receiving structure by pulling manually thereon.

22. (amended) A filter cartridge useful for filtering contaminants that are inhaled through a respirator worn by a person and for permitting instantaneous attachment and removal from a cartridge receiving structure on a face piece of the respirator, the filter cartridge comprising a housing and a filter element, the filter element residing in the housing and the housing including a means for allowing the filter cartridge to be manually and audibly snapped into engagement with a cartridge receiving structure by pressing the filter cartridge against a cartridge receiving structure on a face piece without using rotation movement of the cartridge relative to the receiving structure and for readily separating the filter cartridge from the cartridge receiving structure by pulling manually thereon.

25. (amended) A respirator that comprises:

- (a) a face piece that is sized to fit at least over the nose and mouth of a person;
- (b) a cartridge receiving structure that is located on the face piece;
- [(b) a cartridge receiving structure located on the face piece;]
- (c) a filter cartridge [including] that includes a housing and a filter element, the filter element being contained in the housing; and
- (d) means for manually snapping the filter cartridge into instantaneous engagement with the cartridge receiving structure to produce an audible noise by pressing the filter cartridge against the receiving structure without rotational movement of the cartridge relative to the

receiving structure and for readily separating the filter cartridge from the cartridge structure by pulling manually thereon.